

WHAT IS CLAIMED IS:

1. An image forming apparatus, comprising:
  - image forming means for forming a toner image on an image bearing member,
  - 5 a transfer member for transferring the toner image from the image bearing member onto a transfer material by being supplied with a bias voltage,
  - bias voltage application means for applying normal bias voltage of a polarity opposite to that
  - 10 of a toner or a reverse bias voltage opposite in polarity to the normal bias voltage,
  - control means for controlling said bias voltage application means, and
  - integral current detection means for
  - 15 detecting an integral of an amount of a current flowing from said bias voltage application means to said transfer member,
  - wherein said integral current detection means is capable of detecting an integral current amount of
  - 20 the normal bias voltage at the time of applying the normal bias voltage and an integral current amount of the reverse bias voltage at the time of applying the reverse bias voltage, and
  - said control means controls said bias voltage
  - 25 application means so that an absolute value of the integral current amount of the reverse bias voltage is in the range of not less than 0.2 % and less than 25 %

of an absolute value of the integral current amount of the normal bias voltage.

2. An apparatus according to Claim 1, wherein  
5 said control means controls said bias voltage application means during a period from start to completion of a cycle of an image forming operation.

3. An apparatus according to Claim 1, wherein  
10 said transfer member is in a form of a roller, and said control means applies the reverse bias voltage for not less than a period of one full turn of said transfer member.

15 4. An apparatus according to Claim 1, wherein said control means controls so that the absolute value of the current at the time of applying the reverse bias voltage is not more than a predetermined upper limit.

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5. An apparatus according to Claim 1, wherein the predetermined upper limit is 30  $\mu$ A.

6. An apparatus according to Claim 1, wherein  
25 said bias voltage application means effects constant voltage control.

7. An apparatus according to Claim 1, wherein said bias voltage application means effects constant current control.

5        8. An apparatus according to Claim 6, wherein said control means detects a voltage-current characteristic at a transfer station is a state that the transfer member is not present, and determines a voltage value of said reverse bias voltage on the  
10 basis of the detected voltage-current characteristic.

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